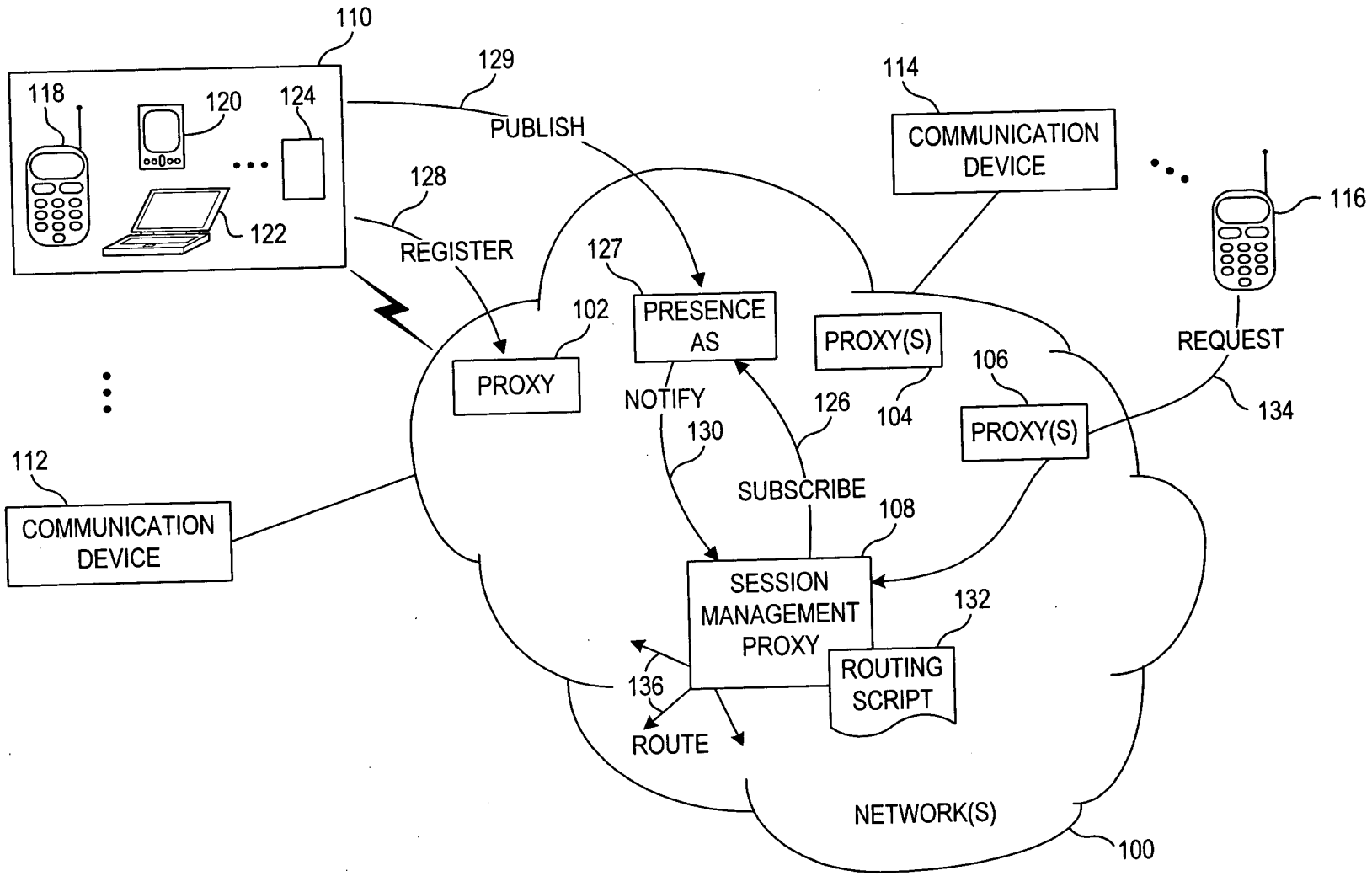
110
118
120
124
122
129
PUBLISH
128
REGISTER
114
COMMUNICATION DEVICE
116
127
PRESENCE AS
102
PROXY
PROXY(S)
104
106
PROXY(S)
REQUEST
134
NOTIFY
126
130
SUBSCRIBE
108
112
COMMUNICATION DEVICE
SESSION MANAGEMENT PROXY
132
ROUTING SCRIPT
136
ROUTE
NETWORK(S)
100

FIG. 1

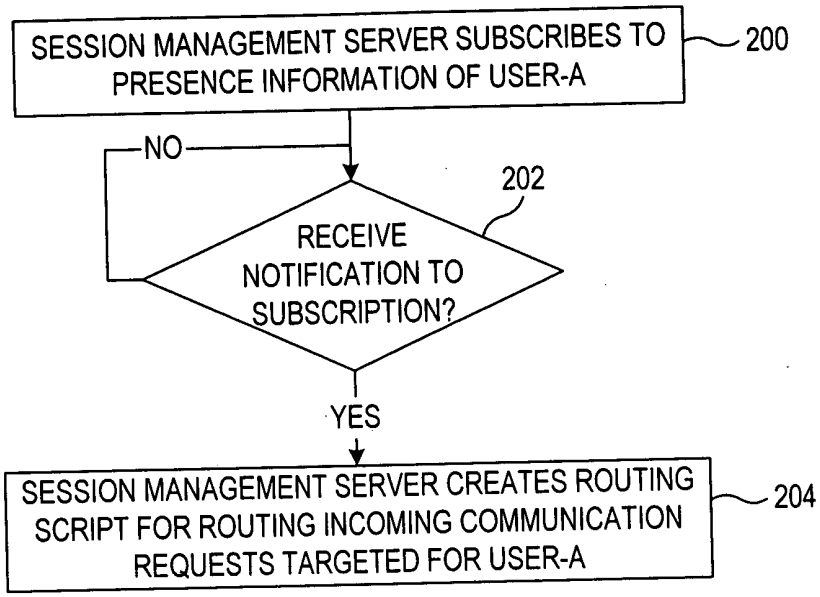
SESSION MANAGEMENT SERVER SUBSCRIBES TO PRESENCE INFORMATION OF USER-A
200
NO
202
RECEIVE NOTIFICATION TO SUBSCRIPTION?
YES
SESSION MANAGEMENT SERVER CREATES ROUTING SCRIPT FOR ROUTING INCOMING COMMUNICATION REQUESTS TARGETED FOR USER-A
204

FIG. 2

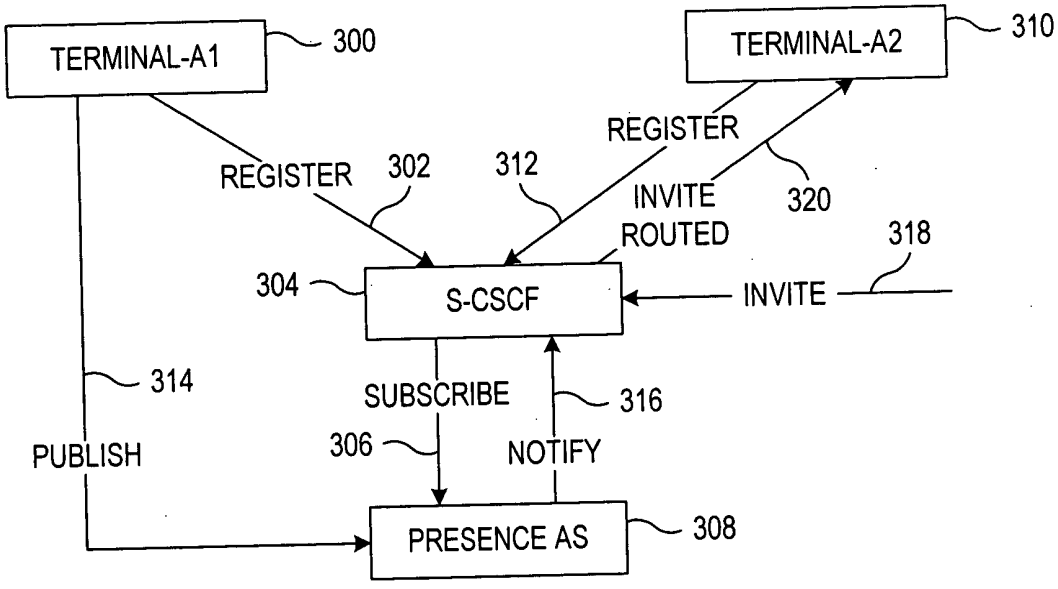
TERMINAL-A1
300
TERMINAL-A2
310
REGISTER
302
REGISTER
312
INVITE
320
ROUTED
318
304
S-CSCF
INVITE
314
SUBSCRIBE
316
306
NOTIFY
PUBLISH
PRESENCE AS
308

FIG. 3

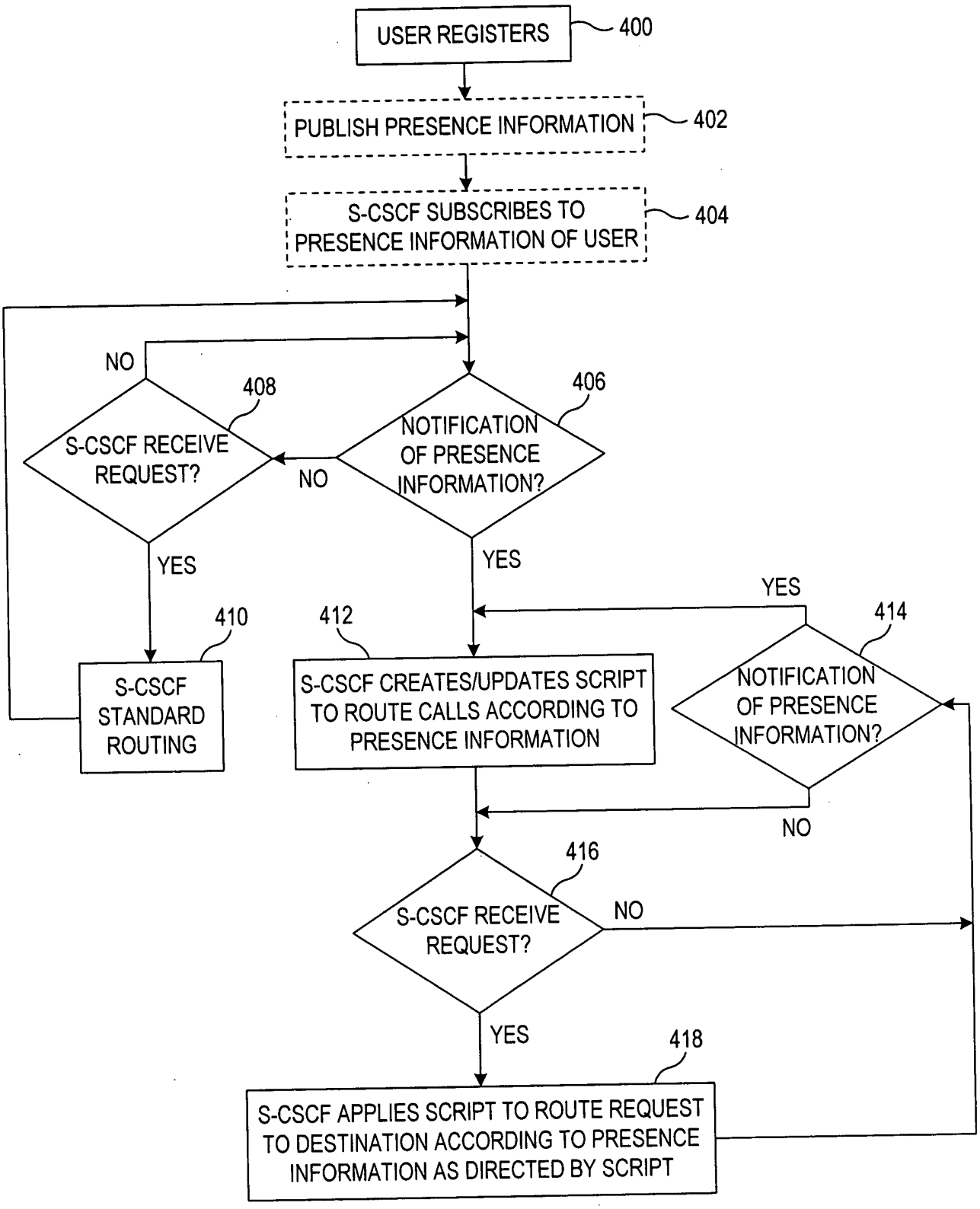
USER REGISTERS
400
PUBLISH PRESENCE INFORMATION
402
S-CSCF SUBSCRIBES TO PRESENCE INFORMATION OF USER
404
NO
408
S-CSCF RECEIVE REQUEST?
406
NOTIFICATION OF PRESENCE INFORMATION?
NO
YES
YES
YES
410
S-CSCF STANDARD ROUTING
412
S-CSCF CREATES/UPDATES SCRIPT TO ROUTE CALLS ACCORDING TO PRESENCE INFORMATION
414
NOTIFICATION OF PRESENCE INFORMATION?
NO
416
S-CSCF RECEIVE REQUEST?
NO
YES
418
S-CSCF APPLIES SCRIPT TO ROUTE REQUEST TO DESTINATION ACCORDING TO PRESENCE INFORMATION AS DIRECTED BY SCRIPT

FIG. 4

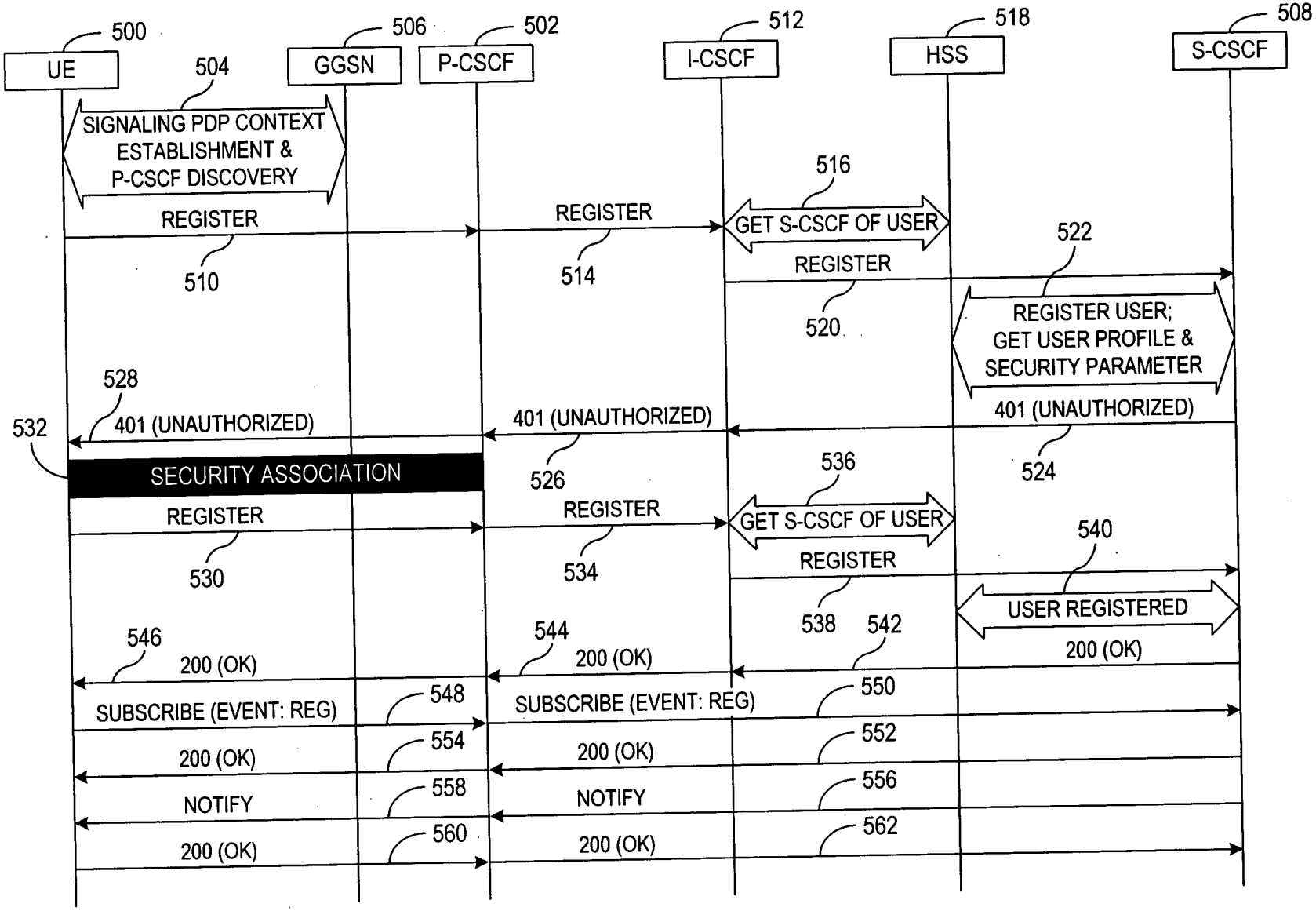
500
UE
506
GGSN
502
P-CSCF
512
I-CSCF
518
HSS
508
S-CSCF
504
SIGNALING PDP CONTEXT ESTABLISHMENT & P-CSCF DISCOVERY
516
REGISTER
510
REGISTER
514
GET S-CSCF OF USER
522
REGISTER
520
REGISTER USER; GET USER PROFILE & SECURITY PARAMETER
528
401 (UNAUTHORIZED)
532
401 (UNAUTHORIZED)
526
401 (UNAUTHORIZED)
524
SECURITY ASSOCIATION
536
REGISTER
530
REGISTER
534
GET S-CSCF OF USER
540
REGISTER
538
542
USER REGISTERED
546
200 (OK)
544
200 (OK)
200 (OK)
SUBSCRIBE (EVENT: REG)
548
SUBSCRIBE (EVENT: REG)
550
200 (OK)
554
200 (OK)
552
NOTIFY
558
NOTIFY
556
200 (OK)
560
200 (OK)
562

FIG. 5

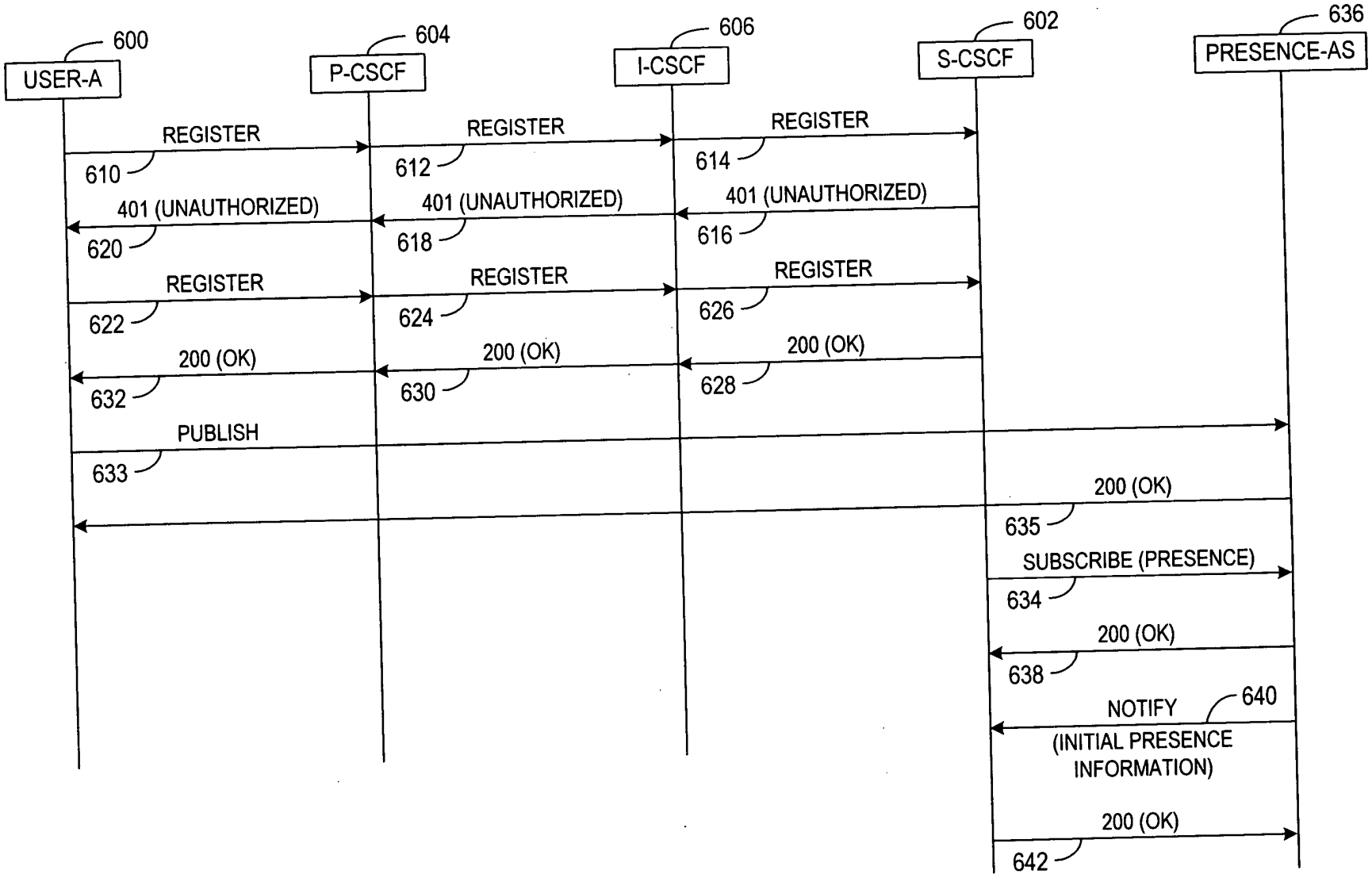
600
USER-A
604
P-CSCF
606
I-CSCF
602
S-CSCF
636
PRESENCE-AS
REGISTER
610
REGISTER
612
REGISTER
614
401 (UNAUTHORIZED)
620
401 (UNAUTHORIZED)
618
401 (UNAUTHORIZED)
616
REGISTER
622
REGISTER
624
REGISTER
626
200 (OK)
632
200 (OK)
630
200 (OK)
628
PUBLISH
633
200 (OK)
635
SUBSCRIBE (PRESENCE)
634
200 (OK)
638
NOTIFY
640
(INITIAL PRESENCE INFORMATION)
200 (OK)
642

FIG. 6

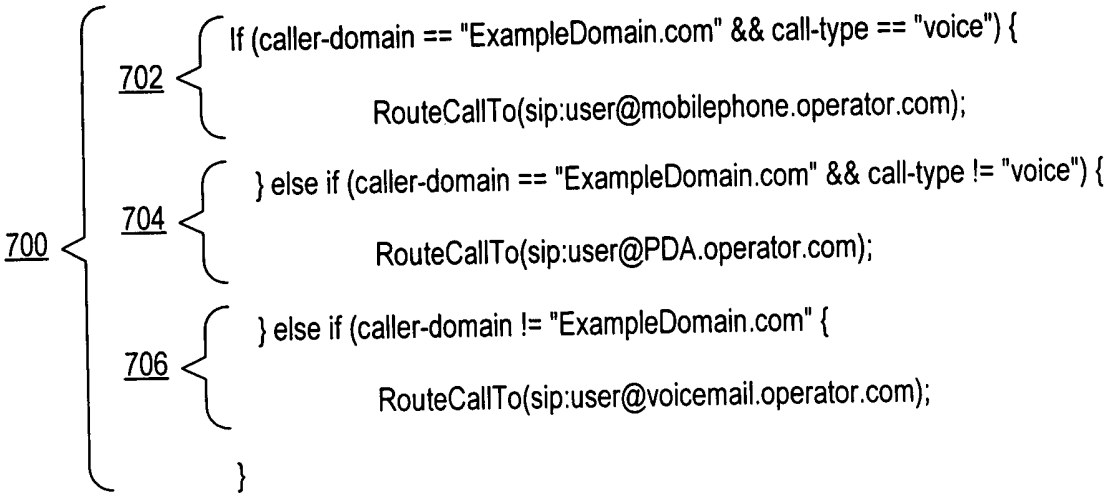
700
702
If (caller-domain == "ExampleDomain.com" && call-type == "voice") {
RouteCallTo(sip:user@mobilephone.operator.com);
704
} else if (caller-domain == "ExampleDomain.com" && call-type != "voice") {
RouteCallTo(sip:user@PDA.operator.com);
706
} else if (caller-domain != "ExampleDomain.com" {
RouteCallTo(sip:user@voicemail.operator.com);
}

FIG. 7A

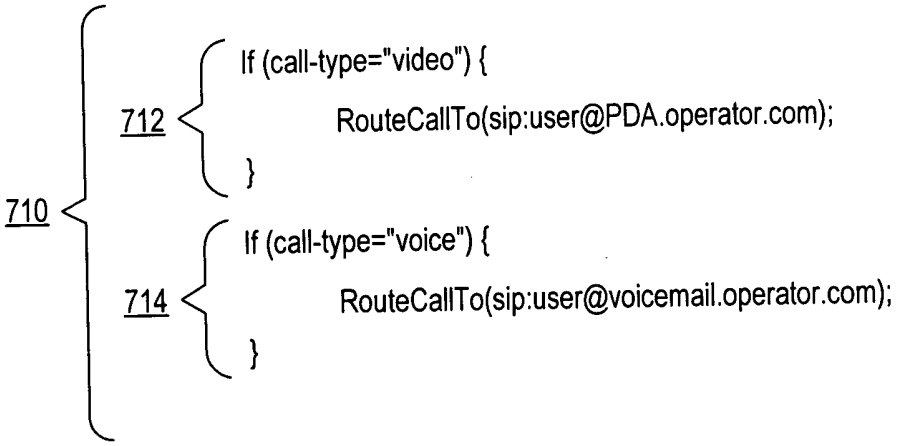
710
712
If (call-type="video") {
RouteCallTo(sip:user@PDA.operator.com);
}
714
If (call-type="voice") {
RouteCallTo(sip:user@voicemail.operator.com);
}

FIG. 7B

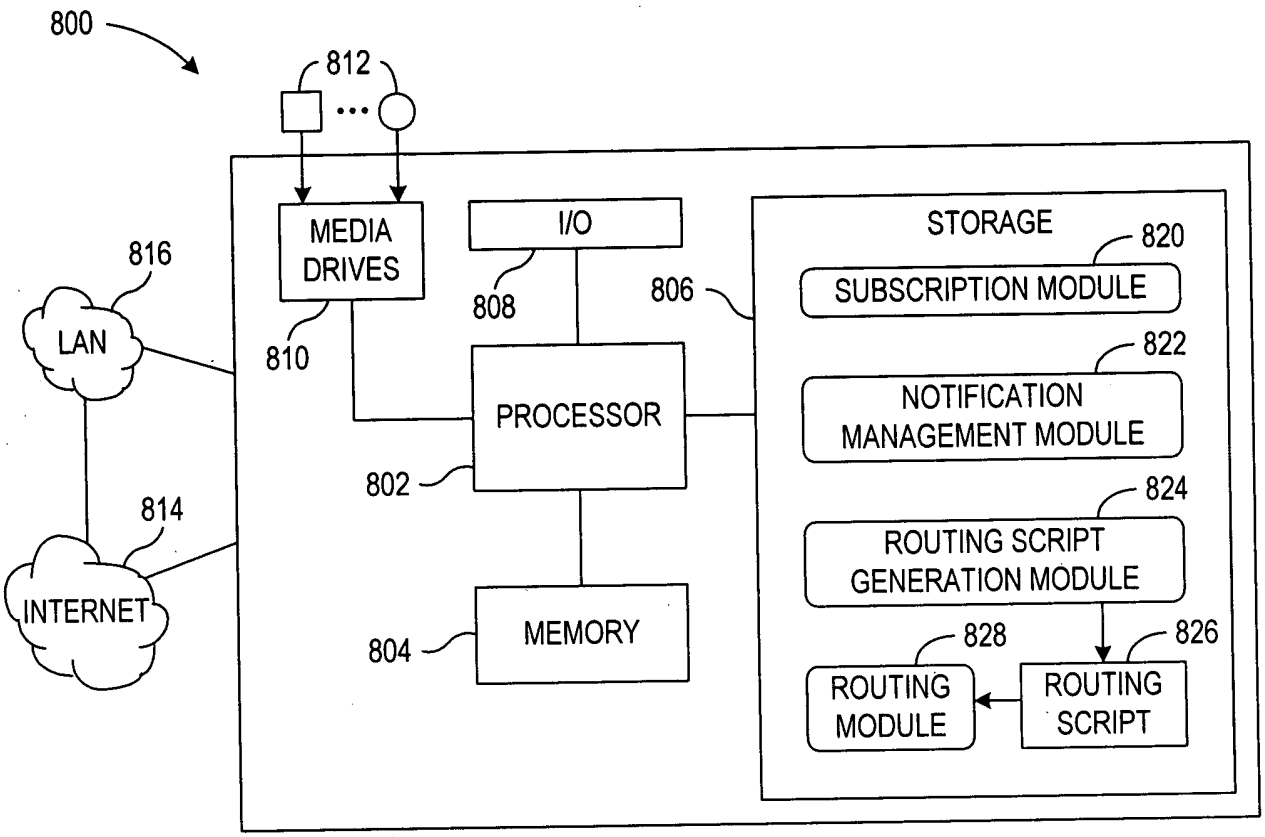
800
812
MEDIA DRIVES
I/O
STORAGE
820
SUBSCRIPTION MODULE
816
LAN
808
806
822
NOTIFICATION MANAGEMENT MODULE
810
PROCESSOR
802
824
ROUTING SCRIPT GENERATION MODULE
814
INTERNET
828
826
ROUTING MODULE
ROUTING SCRIPT
804
MEMORY

FIG. 8